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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,369	03/16/2004	John Michael Lake	RSW920040039US1	3169

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EXAMINER
KHATRI, ANIL

ART UNIT	PAPER NUMBER
2191	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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	Application No.	Applicant(s)
Office Action Summary	10/801,369	LAKE, JOHN MICHAEL
	Examiner	**Art Unit**	
	Anil Khatri	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>7/19/2007</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-19</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-19</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-11 are rejected under 35 USC 101 because they disclose a claimed invention that is an

abstract idea as defined in the case *In re Warmerdam*, 33, F 3d 1354, 31 USPQ 2d 1754 (Fed.

Cir. 1994).

Analysis: Claims 1-11 disclosed by the applicant as being a "method for determining

complexity...". Since the claims are each a series of steps to be performed on a computer the

processes must be analyzed to determine whether they are statutory under 35 USC 101.

Examiner interprets that claims 1-11 are non-statutory because claim recites computer

program, per se i.e. the description or expressions of the program are not physical things nor are

they statutory process as they do not act being performed. Computer programs do not define any

structural and functional interrelationship between the computer program and other claimed

aspect of the invention, which permits the computer program's functionality, could be realized.

Therefore, computer program is merely a set of instructions capable of being executed by a

computer, the computer program itself is not a process. Therefore, claims 1-11 are directed to

abstract idea and do not produce a physical transformation or a concrete and tangible results so

its functionality can be realized. Therefore, claims 1-11 are non-statutory and rejected under 35

USC 101.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by *Sliger et al*

USPN 6,496,974.

Regarding claims 1, 7-12 and 18-19

Sliger et al teaches,

creating a plurality of versions of the software component (columns 7-8, lines 66-67 and lines

1-9, this arrangement is shown in FIGS. 4A and 4B (in a much-abbreviated history window).

The older version of the file consists of data ABCDEFGHIJ. The new version of the file

consists of data ABCZZDEFGHIJ (the changes being the insertion of additional

instructions/code/data "ZZ"). Initially, the entire older version of the file is loaded into the

history window. As characters from the new file are processed, they are added to the window to

supplement the compression dictionary. Once the window is filled to its capacity, each

character added to the window from the new file displaces a character from the old file out of

the window);

compressing each of the versions, to provide compressed versions (column 7, lines 41-55, Patch

file 54 is transferred to the user's computer 20A, by means 58 such as a diskette, CD-ROM,

internet, etc., and is typically stored on the user's hard disk 27. A parallel decompression

process is then performed on the user's computer. A history window 56, implemented in RAM

of computer 20A, is preloaded with version 2.04 of file ABC.EXE as earlier stored on the user's

hard disk 27. The compressed data in patch file 54 is then applied to a decompressor 58 (again

implemented by appropriate programming of the CPU of computer 20A). Decompression

proceeds in accordance with the token and literal information encoded in the compressed data,

copying excerpts from the history window 56, and inserting literal characters as appropriate, to

regenerate version 3.02 of file ABC.EXE on the user's computer 20A. The regenerated file

is then stored on the user's hard disk 27);

finding lengths of the compressed versions (column 7, lines 20-39, However, rather than

beginning with an empty compression dictionary 52 (sometimes termed a "history window" or

"history buffer" and typically implemented in RAM in computer 20B), the instructions first

preload the dictionary with version 2.04 of the file. The compression process proceeds,

identifying successive "matches" between versions 3.02 and 2.04 of the file, and encoding same

in the compressed output data as "tokens" specifying a particular location in the history window

where a match was found, and the length (in bytes, bits, etc.) of the match. Portions of file 3.02

that do not match either any part of version 2.04, or any part of version 3.02 that has already

been processed and now is in the dictionary, are encoded in the compressed output data stream

as literal characters. The programming then causes the CPU to store the compressed output

data from the compression process in a patch file 54. (The patch file may, but need not, include

other data, such as self-extraction instructions, etc.) Due to the substantial redundancy between

versions 2.04 and 3.02, the patch file is quite small, essentially comprising just the

differences between the two files ; and

comparing the lengths of the compressed versions (column 3, lines 6-20, accordance with a

preferred embodiment of the present invention, the foregoing and additional drawbacks of the

prior art are overcome. The two distinct operations of pattern matching and compression

(performed on the vendor's computer in prior art patch generation techniques) are replaced by a

single operation that both compares old and new file versions, and produces a compressed

output by which the latter can be generated from the former. Likewise, the two distinct

operations of decompression and patch instruction application (performed on the user's

computer in the prior art) are replaced by a single operation that both decompresses the patch

file data and results in recreation of the new file. The patch file generated and used in these

processes is of considerably reduced size--sometimes half the size of compressed patch files

produced by prior art approaches) ;

providing a software complexity metric comprising a comparison of the lengths of the

compressed versions (column 10, lines 10-17, FIG. 7 illustrates the process. On the vendor's

computer, the old version of the file is loaded into RAM memory. There it is normalized, as

necessary, in accordance with FIG. 6. The normalized file on the vendor's computer is then

compared with the new version of the file to generate a patch file. (This "comparing" can be of

the type described above, involving LZ compression wherein the history buffer is preloaded

with the normalized old file, or it can be done by any other technique).

Regarding claims 2-4 and 13-15

Sliger et al teaches,

the plurality of versions includes raw program text (column 12, lines 15-23, For example, the

raw update data can be assembled into a self-extracting patch file. Execution of such a file on

the user's computer can: specify the file to be updated, load that file from the user's hard disk

into memory, normalize the file preparatory to updating, implement a software decompressor,

pre-initialize the decompressor in accordance with existing data on the user's computer; apply

the update data to the decompressor, and take the resulting file data and store it on the user's

disk, or initiate any appropriate installation procedure).

Regarding claims 5-6 and 16-17

Sliger et al teaches,

the step of comparing includes a step of finding a ratio using the length of the compressed

version of raw program text and the length of the compressed version of normalized program

text (figures 6-7, see abstract, The output of the decompressor is the new file. The patch files

generated and used in these processes are of significantly reduced size when compared to the

prior art. Variations between copies of the old file as installed on different computers are also

addressed, so that a single patch file can be applied irrespective of such variations. By

so doing, the need for a multi-version patch file to handle such installation differences is

eliminated, further reducing the size of the patch file when compared with prior art techniques.

Such variations are addressed by "normalizing" the old file prior to application of the patch file.

A temporary copy of the old file is typically made, and locations within the file at which

the data may be unpredictable due to idiosyncrasies of the file's installation are changed to

known or predictable values).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Anil Khatri whose telephone number is 571-272-3725. The

examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ANIL KHATRI
PRIMARY EXAMINER